ABSTRACT OF THE INVENTION

An imaging system, methodology, and various applications are provided to facilitate optical imaging performance. The system contains a sensor having one or more receptors and an image transfer medium to scale the sensor and receptors in accordance with resolvable characteristics of the medium, and as defined with certain ratios. A computer, memory, and/or display associated with the sensor provides storage and/or display of information relating to output from the receptors to produce and/or process an image, wherein a plurality of illumination sources can also be utilized in conjunction with the image transfer medium. The image transfer medium can be configured as a k-space filter that correlates projected receptor size to a diffraction-limited spot associated with the image transfer medium, wherein the projected receptor size can be unit-mapped within a certain ratio to the size of the diffraction- limited spot, both in the object plane.